

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

8620E0"4T99E060

5' GTG AAG TGG TGA AAG AAG GGG TGG GAA CGC TGG ACT TCT GGA CTT TGG GCA GGG	9	18	27	36	45	54
CAG ATC CTC TGA CTC TCT GGC TGC AGA ACA GTT TCT TCC GTG CTC TGG CCT GAG	63	72	81	90	99	108
TGC CCA CAG GCC AGG GGC CTC TGC TCT GTA CAC AGA CCG GGC AAG GTC CCC CAG	117	126	135	144	153	162
GCC AGG ATG TCA GGC CTG GTG TTG GGG CAG CGG GAT GAG CCT GCA GGC GAC CGG	171	180	189	198	207	216
L S Q E E I L G S T R D E P A G H R	225	234	243	252	261	270
GCC CTA CGC AGT GAA CAC CAG GCC GTG CTG CAA AGC CTG TCC CAG ACC ATT GAG	279	288	297	306	315	324
A L R S E H Q Q A V L S L S Q T I E	333	342	351	360	369	378
TGT CTG CAG GGA GGC CAT GAG GAA GGG CTG GTG CAT GAG AAG GCC CGG CAG	387	396	405	414	423	432
C L Q Q G G H E E G L V H E K A R Q						
CTT CGC CGT TCT ATG GAA AAC ATT GAG CTC GGG CTG AGT GAG GCC CAG GTG ATG						
L R R S M E N I E L G L S E A Q V M						

FIGURE 1A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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8640004T99000

441	CTG GCT CTA GCC AGC CAC CTG AGC ACA GTG GAG TCG GAG AAA CAG Q K L R	450	459	468	477	486
495	GCT CAG GTG CGG CGG CTA TGC CAG GAG AAC CAG TGG CTG CTG GAT GAG CTG GCT	504	513	522	531	540
549	GGC ACC CAG CAG CGG CTA CAG CGC AGT GAA CAG GCT GTG GCT CAG CTG GAG GAG	558	567	576	585	594
603	GAA AAG AAG CAC CTG GAG TTC CTG GGG CAG CTG CGG CAG TAT GAT GAG GAT GGA	612	621	630	639	648
657	CAT ACC TCG GAG GAG AAA GAA GGC GAT GCC ACC AAG GAT TCC CTG GAT GAC CTC	666	675	684	693	702
711	TTT CCT AAT GAG GAG GAG GAA GGC GAC CCC AGC AGC AAT GGC TTG TCC CGT GGT CAA GGT	720	729	738	747	756
765	GCT ACA GCA GCT CAG GGT GGA TAT GAG ATC CCA GCA AGG TTG CGG ACG TTG	774	783	792	801	810

FIGURE 1B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

364060"4T39E060

819	828	837	846	855	864
CAC AAC CTG GTG ATC CAG TAC GCA GCC CAA GGT CGC TAT GAG GTG GCC GTG CCA					
H N L V I Q Y A A A Q G R Y E V A V P					
873	882	891	900	909	918
CTC TGT AAG CAG GCA CTA GAG GAC CTG GAG CGC ACA TCA GGC CGT GGC CAC CCT					
L C K Q A L E D L E R T S G R G H P					
927	936	945	954	963	972
GAT GTC GCC ACC ATG CTC AAC ATC CTT GCT TTG GTG TAT CGT GAC CAG AAT AAG					
D V A T M L N I L A A L V Y R D Q N K					
981	990	999	1008	1017	1026
TAT AAG GAA GCT GCC CAC CTG CTG AAT GAT GCC CTT AGC ATC CGG GAG AGC ACC					
Y K E A A H L L L N D A L S I R E S T					
1035	1044	1053	1062	1071	1080
TTG GGA CCT GAC CAT CCT GCT GCT GTG GCT GCC ACA CTC AAC AAT TTG GCT GTG CTC					
L G P D H P A A A A T L N L A V L					
1089	1098	1107	1116	1125	1134
TAT GGC AAA AGG GGC AAG TAC AAG GAG GCA GAG CCT CTG TGC CAG CGG GCA CTG					
Y G K R G K Y K E A A E P L C Q R A L					
1143	1152	1161	1170	1179	1188
GAG ATT CGA GAA AAG GTC CTG GGC ACG AAT CAT CCA GAT GTG GCA AAA CAG CTG					
E I R E K V L G T N H P D V A K Q L					

FIGURE 1C

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

362060"4T9E060

1197	1206	1215	1224	1233	1242
AAC AAC CTG GCC CTC TTG TGC CAA AAC CAG GGC AAG TAT GAG GCC GTG GAA CGC					
N N L A L L C Q N Q G K Y E A V E R					
1251	1260	1269	1278	1287	1296
TAC TAC CAG CGA GCA CTG GCC ATC TAC GAG GGC CAG CTG GGG CCG GAC AAC CCT					
Y Y Q R A L A I Y E G Q L G P D N P					
1305	1314	1323	1332	1341	1350
AAT GTA GCC CGG ACC AAG AAC AAC CTG GCT TCC TGT TAC CTG AAA CAG GGC AAA					
N V A R T K N N L A S C Y L K Q G K					
1359	1368	1377	1386	1395	1404
TAT GCT GAG GCT GAG ACA CTA TAC AAA GAG ATC CTG ACC CGT GCC CAT GTA CAG					
Y A E A E T L Y K E I L T R A H V Q					
1413	1422	1431	1440	1449	1458
GAG TTT GGG TCT GTG GAT GAT GAC CAC AAG CCC ATC TGG ATG CAT GCA GAG GAG					
E F G S V D D D H K P I W M H A E E					
1467	1476	1485	1494	1503	1512
CGG GAG GAA ATG AGC AAA AGC CGG CAC CAT GAG GGT GGG ACA CCC TAT GCT GAG					
R E E M S K S R H H E G G T P Y A E					
1521	1530	1539	1548	1557	1566
TAT GGA GGC TGG TAC AAG GCC TGC AAA GTG AGC AGC CCC ACA GTG AAC ACT ACT					
Y G G W Y K A C K V S S P T V N T T					

FIGURE 1D

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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1575	CTG AGA AAC	1584	CTG GGA GCT	1593	CTG TAT AGG	1602	CAG GGA AAG	1611	CTG GAG GCT	1620	GCT GAG
	L R N		L G A		L Y R		Q G K		L E A		A E
1629	ACC CTG GAG	1638	TGT GCC	1647	CTG CGG TCC	1656	CAG AGA CAG	1665	ACT GAC CCT	1674	ATC AGC
	T L E		C A C		R S R		Q R G		T D P		I S
1683	CAG ACG AAG	1692	GCA GAG	1701	CTT GGG	1710	AGT GAT GGT	1719	AGA AGG ACC	1728	TCC CAG
	Q T K		V A E		L L G		S D G		R R T		S Q
1737	GAG GGC CCT	1746	GGA GAC	1755	GTG AAA TTC	1764	GGT GGT GAA	1773	GAT GCT TCT	1782	GTG GCT
	E G P		G D S		V K F		E G E		D A S		V A
1791	GTG GAG TGG	1800	TCC GGG	1809	AGT GGC	1818	CAG ACC CTG	1827	AGT GGC TCT	1836	CTT GGC
	V E W		S G D		S S G		L Q R		S G S		L G
1845	AAG ATC CGG	1854	GAT GTG	1863	AGA AGC	1872	GAA CTC TTG	1881	AGG AAG CTC	1890	CAG
	K I R		D V L		R S S		E L L		R K L		Q
1899	GGG ACT GAG	1908	CCT CGG	1917	AGC AGC	1926	AAG ATG CGA	1935	GCC TCC	1944	TTG AAC
	G T E		P R P		S S S		M K R		A A S		L N

FIGURE 1E

Sequence alignment

1953	1962	1971	1980	1989	1998
TAT CTG AAC CAA CCT AGT GCA GCA CTC CAG GTC TCC CGG GGC CTC AGT GCC					
Y L N Q P S A A P L Q V S R G L S A					
2007	2016	2025	2034	2043	2052
AGC ACC ATG GAC CTC TCT TCA AGC AGC TGA CAT TCA ACC CGG CCC CCA GGT CTG					
S T M D L S S S S					
2061	2070	2079	2088	2097	2106
CTG GGT CCC CCC ACC CCC ACA GCC CTC ACA GCA TTC CCC ATT GCT CCT GGC TCT					
2115	2124	2133	2142	2151	2160
TCC CCA CCC CTA GGT GGG ACA GTG AAG GGG AGC AGT TTA ACC AGA AGA TTG CTG					
2169	2178	2187	2196	2205	2214
CTG CCC TTA GGG TCT CAG CTC CCT CCT CAG GAA TCC CTC TTA GGA AGG ACC CTC					
2223	2232	2241	2250	2259	2268
AGG ACA CCC TCT CTG CAC CCT GTG GTC CTC TAG AGT AGC TAG CTC TGA GGC CCC					
2277	2286	2295	2304	2313	2322
AAG GTG GGT ACA AAG CAG GTA TGG CCC TCA GAG ATG CAG CCT GCT GCT GGC TTT					
2331	2340	2349	2358	2367	2376
TCA GTC AGA GGG TTG GGG GCT GGC CAG CCA AGC TGC CTT GCC CTG GCC GCT CTT					
2385	2394	2403	2412	2421	2430
ACT CCC TCC CTC TGC TGT CTC ACT TCA GGT CCA TGT ATT TCA CTT TTC TTA AAT					

FIGURE 1F

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

36X060" 4T39E050

2439 2448
AAA AGA ATC AGT NCT TNT NTN NG 3'

FIGURE 1G

SECRET

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

1	M	S	G	L	V	L	G	Q	R	D	E	P	A	G	H	R	L	S	Q	E	E	I	L	G	S	T	R	L	V	S	2479739
1	M	S	T	M	V	Y	I	K	E	D	K	L	-	-	E	K	L	T	Q	D	E	I	I	S	K	T	K	Q	V	I	GI 307085
31	Q	G	L	E	A	L	R	S	E	H	Q	A	V	L	Q	S	L	S	Q	T	I	E	C	L	Q	Q	G	G	H	E	2479739
29	Q	G	L	E	A	L	K	N	E	H	N	S	I	L	Q	S	L	L	E	T	L	K	C	L	K	K	D	D	-	E	GI 307085
61	E	G	L	V	H	E	K	A	R	Q	L	R	R	S	M	E	N	I	E	L	G	L	S	E	A	Q	V	M	L	A	2479739
58	S	N	L	V	E	K	S	N	M	I	R	K	S	L	E	M	L	E	L	G	L	S	E	A	Q	V	M	M	A	GI 307085	
91	L	A	S	H	L	S	T	V	E	S	E	K	Q	K	L	R	A	Q	V	R	R	L	C	Q	E	N	Q	W	L	R	2479739
88	L	S	N	H	L	N	A	V	E	S	E	K	Q	K	L	R	A	Q	V	R	R	L	C	Q	E	N	Q	W	L	R	GI 307085
121	D	E	L	A	G	T	Q	Q	R	L	Q	R	S	E	Q	A	V	A	Q	L	E	E	E	K	K	H	L	E	F	L	2479739
118	D	E	L	A	N	T	Q	Q	K	L	Q	K	S	E	Q	S	V	A	Q	L	E	E	E	K	K	H	L	E	F	M	GI 307085
151	G	Q	L	R	Q	Y	D	E	D	G	H	T	S	E	E	K	E	G	D	A	T	K	D	S	L	D	D	L	F	P	2479739
148	N	Q	L	K	K	Y	D	D	I	S	P	S	E	D	K	D	T	D	S	T	K	E	P	L	D	D	L	F	P	GI 307085	
181	N	E	E	E	D	P	S	N	G	L	S	R	G	Q	G	-	-	A	T	A	A	Q	Q	G	G	Y	E	I	P	2479739	
178	N	D	E	D	-	D	P	G	Q	G	I	Q	Q	Q	H	S	S	A	A	A	A	Q	Q	G	G	Y	E	I	P	GI 307085	

FIGURE 2A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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209	A R L R T L H N L V I Q Y A A Q G R Y E V A V P L C K Q A L	2479739
207	A R L R T L H N L V I Q Y A S Q G R Y E V A V P L C K Q A L	GI 307085
239	E D L E R T S G R G H P D V A T M L N I L A L V Y R D Q N K	2479739
237	E D L E K T S G H D H P D V A T M L N I L A L V Y R D Q N K	GI 307085
269	Y K E A A H L L N D A L S I R E S T L G P D H P A V A A T L	2479739
267	Y K D A A N L L N D A L A I R E K T L G K D H P A V A A T L	GI 307085
299	N N L A V L Y G K R G K Y K E A E P L C Q R A L E I R E K V	2479739
297	N N L A V L Y G K R G K Y K E A E P L C K R A L E I R E K V	GI 307085
329	L G T N H P D V A K Q L N N L A L L C Q N Q G K Y E A V E R	2479739
327	L G K D H P D V A K Q L N N L A L L C Q N Q G K Y E E V E Y	GI 307085
359	Y Y Q R A L A I Y E G Q L G P D N P N V A R T K N N L A S C	2479739
357	Y Y Q R A L E I Y Q T K L G P D D P N V A K T K N N L A S C	GI 307085
389	Y L K Q G K Y A E A E T L Y K E I L T R A H V Q E F G S V D	2479739
387	Y L K Q G K F K Q A E T L Y K E I L T R A H E R E F G S V D	GI 307085

FIGURE 2B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

419	D D H K P I W M H A E E R E E M S K S R H H E G G T P Y A E	2479739
417	D E N K P I W M H A E E R E E - C K G K Q K D G - T S F G E	GI 307085
449	Y G G W Y K A C K V S S P T V N T T L R N L G A L Y R R Q G	2479739
445	Y G G W Y K A C K V D S P T V T T L K N L G A L Y R R Q G	GI 307085
479	K L E A A E T L E E C A L R S R R Q G T D P I S Q T K V A E	2479739
475	K F E A A E T L E E A M R S R K Q G L D N V H K Q R V A E	GI 307085
509	L L G E S D G - - - R R T S Q E G P G D S V K F E - - - G	2479739
505	V L N D P E N M E K R R S R E S L N V D V V K Y E S G P D G	GI 307085
532	G E D A S V A V E W S G D G S G T L Q R S G S L G K I R D V	2479739
535	G E V S M S V E W N G G V S G - - - R A S F C G K R Q Q -	GI 307085
562	L R R S S E L L V R K L Q G T E P R P S S S N M K R A A S L	2479739
561	- - - - - - - - - - Q Q W P G R R H R	GI 307085
592	N Y L N Q P S A A P L Q V S R G L S A S T M D L S S S S	2479739
569		GI 307085

FIGURE 2C